

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (TS-767)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

419-228

DATE OF ISSUANCE

10/23/85

TERM OF ISSUANCE

NAME OF PESTICIDE PRODUCT

Cenol Liquid Carbaryl Insecticide

NOTICE OF PESTICIDE:

☒ REGISTRATION
☐ REREISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Cenol Company
21 North 988 Pepper Road
Barrington, IL 60010

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

2. Add the phrase "EPA Registration No. 419-228" to your label before you release the product for shipment.

3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Jay S. Ellenberger
Product Manager (12)
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Enclosure

☐ ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

Jay S. Ellenberger

DATE

10/23/85

STORAGE AND DISPOSAL

Avoid Storage conditions that might alter the composition or usefulness of the pesticide, e.g. temperature extremes, excessive moisture or humidity, heat, sunlight, friction or contaminating substances or media. Keep pesticide container closed in a cool, dry, locked cabinet or room.

Pesticide Disposal:

Do not contaminate water, food, or feed by storage or disposal. Pesticide Wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

Metal Containers: Triple Rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Containers: Triple Rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Household Use Pesticide Only:

Pesticide Disposal: Securely wrap original container in several layers of newspaper and discard in trash.
Container Disposal: Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding.

ACCEPTED
with COMMENTS

Cenol

LIQUID CARBARYL INSECTICIDE

FOR EFFECTIVE CONTROL OF
MANY LISTED INSECT PESTS ON VEGETABLE CROPS
AND NUT CROPS, SMALL FRUIT CROPS, TREES AND ORNAMENTALS
AND LAWNS AND RECREATION AREAS.

Also for control of Mosquitoes and Listed poultry
Can be used in the home as directed.

OCT 23 1985

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

419-228

Manufactured by
CENOL Company
Barrington, IL 60010

Order Code:

ACTIVE INGREDIENTS:

Carbaryl (1-naphthyl methylcarbamate)..... 22.5%

INERT INGREDIENTS:..... 77.5%

TOTAL..... 100.0%

KEEP OUT OF REACH

CAUTION

See side panel for additional precautions

EPA Reg. No. 419-228

EPA Est. No. 419-IL-1

Net 1 Gallon / 3.785 Liters

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND

DOMESTIC ANIMALS

CAUTION

May be harmful if swallowed. Avoid breathing spray mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

GENERAL INFORMATION

CENOL LIQUID CARBARYL readily disperses in water to form a spray suspension suitable for home and garden use. READ LABEL BEFORE USE, STRICTLY OBSERVE LABEL DIRECTIONS, AND APPLICABLE FEDERAL AND STATE REGULATIONS.

Treated areas may be re-entered immediately after the spray has dried.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to aquatic and estuarine invertebrates. Do not apply directly to water or wetlands, except under the forest canopy. Do not contaminate water by cleaning of equipment or disposal of wastes.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

To avoid possible injury to tender foliage, do not apply to wet foliage or when rain or high humidity is expected during the next two days. CENOL LIQUID CARBARYL injures Boston Ivy, Virginia Creeper and Maidenhair Fern. During early season, it may also injure Virginia and Sand Pines.

STATEMENT OF PRACTICAL TREATMENT

- | | |
|--------------|---|
| If Swallowed | • Induce vomiting by placing finger on back of throat. Call a physician. Never give anything by mouth to an unconscious person. |
| If on Skin | • Remove contaminated clothing and wash skin with soap and plenty of water. If irritation develops get medical attention. |
| If in Eyes | • Immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops get medical attention. |

NOTE TO PHYSICIAN

Carbaryl is a moderate, reversible, cholinesterase inhibitor. Atropine is antidotal. DO NOT USE 2-PAM, opiates or cholinesterase inhibiting drugs.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. Use strictly according to label directions and cautions. Do not use application methods, dosages, concentrations or frequencies not listed on labeling. Do not apply against target pests or crops not listed on labeling. Do not mix with fertilizers.

SPRAY PREPARATION — TO ASSURE A UNIFORM PRODUCT, STIR OR SHAKE ALL CENOL LIQUID CARBARYL CONTAINERS PRIOR TO USE. Clean sprayer thoroughly before use.

Prepare only as much spray mixture as is needed on the day of mixing. Fill sprayer with $\frac{1}{2}$ to $\frac{3}{4}$ the desired amount of water. Slowly add the required amount of CENOL LIQUID CARBARYL, and then the remaining volume of water. SHAKE SPRAY MIXTURES FREQUENTLY BEFORE AND DURING USE TO PREVENT SETTLING. DO NOT STORE SPRAY MIXTURES OVERNIGHT. To clean your sprayer after use, drain and flush with water. Do not use contaminated teaspoons or other measuring devices for other purposes.

COMPATIBILITY — CENOL LIQUID CARBARYL when diluted with an equal volume of water, is compatible with a wide range of pesticides. It is not compatible with diesel fuel, kerosene, fuel oil or aromatic solvents. If compatibility of CENOL LIQUID CARBARYL with another product and the resulting plant response is unknown, it should be tested on a small scale. Curdling, precipitation, greasing, layer formation or increased viscosity are symptoms of incompatibility. WHEN PREPARING COMBINATION SPRAYS, FIRST ADD CENOL LIQUID CARBARYL TO AT LEAST AN EQUAL VOLUME OF WATER, MIX THOROUGHLY, AND THEN ADD COMBINATION PRODUCTS TO THE MIXTURE. DO NOT APPLY COMBINATIONS UNLESS YOUR PREVIOUS EXPERIENCE INDICATES THE MIXTURE IS EFFECTIVE AND WILL NOT RESULT IN APPLICATION PROBLEMS, EXCESSIVE RESIDUES OR PLANT INJURY.

Unstable under highly alkaline conditions. Not effective if used with alkaline materials such as Bordeaux, lime-sulfur and casein-lime spreaders.

INSECT CONTROL — Apply when insects or their damage appears. To maintain control repeat at 7 to 14 day intervals or as necessary unless a shorter interval is specified below. When a dosage range is indicated, use lower rate on young plants and early instars and adults. Thorough and uniform spray coverage is essential for effective control. Avoid applications just before rainfall as poor insect control may result.

CENOL LIQUID CARBARYL does not control spider mites. If spider mites are a problem, use a registered miticide.

CROP ROTATION: Subsequent planting of food and feed crops in treated soil must be made with crops on this or other carbaryl label(s).

Do not assume all risks of use, storage or handling. This product not in strict accordance with directions given on the label.

All Vegetable Crop In This Section	Grasshoppers	2 to 6	See specific Vegetable Crop	Use 2 to 3 teaspoons/gallon for nymphs on small plants or sparse vegetation. Use 4 to 6 teaspoons/gallon for adult grasshoppers or appli- cation to dense vegetation.
Asparagus	Asparagus beetle Apache beetle Asparagus beetle	4 to 8 8 to 16	1 Post harvest application only	Treat ferns or brush growth. Do not treat more than once every 3 days.
Beans (including black-eyed peas, cowpeas, crowder or southern pea, dry beans, green beans, lima beans, navy beans and snap beans)	Bean beetles Mexican bean beetle Ailanthus caterpillar, Bean leaf beetle, Cucumber beetle, Flea beetles, Green cloverworm, Japanese beetle, Leafhoppers, Three cornered alfalfa hopper, Trips, Velvetbean cater- pillar, Western bean cutworm	2 to 4 4	0 cowpeas: 3 days	Observe plant response precautions.
On	Armyworm, Corn earworm, 4 to 6 Cutworms, European corn borer, Fall armyworm, Sink bugs, Tarnished plant bug, W. borers	4 to 6		
	Cowpea curculio	8		
	Corn earworm, Limbean pod borer, Lygus bugs, Sink bugs	8		CALIFORNIA ONLY
Cabbage Broccoli Brussels Sprouts Cauliflower Kohlrabi	Flea beetles, Harlequin bug	2 to 4	3	
	Armyworm, Corn ear- worm, Fall armyworm, Imported Cabbage worm	4 to 8		
Chinese cabbage Collards Hanover salad Horseradish Kale Mustard greens Radishes Rutabagas Turnips	Flea beetles, Harlequin bug, Leafhoppers	2 to 4	3 (horseradish, radishes, rutabagas and turnip roots)	
	Aster leafhopper	4 to 6		
	Armyworm, Corn earworm, Fall armyworm, Imported cabbage worm, Sink bugs, Tarnished plant bug	4 to 8	14 (Chinese cabbage, collards, Hanover salad, kale, mustard greens, and tur- nip tops)	
Carrots Parsnips Parsley	Flea beetles, Leafhoppers	2 to 4	0 (carrots) 3 (parsnips)	Treat on a 5 to 7 day schedule.
	Aster leafhopper, Lygus bugs, Spittlebugs	4 to 6		
	Armyworm, Corn earworm, Fall armyworm, Sink bugs, Tarnished plant bug	4 to 8	14 (celery & parsley)	
Corn	Armyworm, Chinch bugs, Corn earworm, corn root- worm adults, European corn borer, Fall armyworm, Flea beetles, Japanese beetle, Sip beetles, Southwestern corn borer, Leafhoppers	4 to 8	0	OBSERVE BEE CAUTION. For insects attacking silks and ears apply at 1 to 6 day inter- vals starting when first silks appear and continuing until silks begin to dry. For larvae in whorl and foliage feeders, apply as necessary. For chinch bugs use high gal- lonage ground application directed at the base of plant. Optimum timing and good coverage are essential for effective control.
	Western bean cutworm	8	0	Treat when infestation averages 15% and at 80% to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness.
Cucumber Melons Pumpkin Squash	Pickleworm, Melonworm	2 to 4		Observe plant response precautions. Avoid excessive applications.
	Cucumber beetles, Flea beetles, Leafhoppers, Squash bugs	4	0	

Dandelion (Escarole) Lettuce Salad	Flea beetles, Harequin bug, Leafhoppers	2 to 4	3 (head lettuce) & salad roots)	Observe plant response precautions. Treat on a 5 to 7 day schedule after heads begin to form.
	Aster leafhopper, Lygus bugs, Spittlebugs	4 to 6	14 (dandelions, and/or (escarole), leaf lettuce & salad tops)	
	Armyworm, Corn ear- worm, Fall armyworm, Imported cabbage worm, Sink bugs, Tarnished plant bug	4 to 8		
Garden beet Spinach Swiss chard	Flea beetles, Harequin bug, Leafhoppers	2 to 4	3 (garden beet roots)	Treat on a 5 to 7 day schedule.
	Aster leafhopper	4 to 6		
	Armyworm, Corn ear- worm, Fall armyworm, Sink bugs, Tarnished plant bug	4 to 8	14 (garden beet tops, spinach, Swiss chard)	
Onion	Corn earworm, Sink bugs	4 to 8	0	Treat on a 5 to 7 day schedule
Peanuts	Blister beetles, Mexican bean beetle	2 to 4		Observe plant response precautions.
	Athalia caterpillar, Bean leaf beetle, Cucumber beetles, Green clover- worm, Japanese beetle, Leafhoppers, Red-necked peanutworm, Three cor- nered alfalfa hopper, Thrips, Velvetbean caterpillar	4	0	
	Armyworm, Corn ear- worm, Fall armyworm, Sink bugs, Webworms	4 to 6		
	Cutworms, Whitefringed beetle adults	8		
Peas	Colorado potato beetle, Leafhoppers	4	0	WASHINGTON STATE ONLY
	Armyworm	4 to 6		
	Athalia caterpillar, Cut- worms, Pea leaf weevil, Pea weevil, Yellow-striped armyworm	6		
	Athalia looper	10		

CROPS	INSECT	TSPS OF Cenol Liquid Carbaryl Per GAL	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Potato, Tomato, Eggplant, Pepper	Colorado potato beetle, Flea beetles, Leafhoppers	2 to 4		
	European corn borer, Fall armyworm, Lace bugs, Sink bugs, Tarnished plant bug, Tomato fruit- worm, Tomato hornworm, Tomato pinworm	4 to 6	0	
	Cutworms	8		

TREE FRUIT AND NUT CROPS

All dosages refer to teaspoonsful of Cenol Liquid Carbaryl per gallon water. Use sufficient spray gallonage to obtain thorough coverage. Do not exceed maximum rate of Cenol Liquid Carbaryl per gallon of spray. (One teaspoonful equals 0.17 fluid ounces or 5 milliliters. Three teaspoonsful equal one tablespoonful).

CROP	TSPS OF Cenol Liquid Carbaryl	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS	
APPLE THINNING				
Apples only	1 to 2	1	Apply 1 full coverage dilute spray between 10 and 25 days after full bloom. If factors such as tree age, variety, nutrition, previous crop, pruning, bloom and degree of set favor excessive fruit thinning with Cenol Liquid Carbaryl exercise caution to avoid possible yield reduction.	
	2 to 4	1	For easily thinned varieties including Cortland, Grimes, Jonathan, McIntosh, Orleans, Rome Beauty, Puritan, Red Delicious, Winesap, Yellow Newton.	
			For difficult to thin varieties including Baldwin, Ben Davis, Duchess, Early McIntosh, Golden Delicious, Lady Apple, Northern Spy, Rhode Island Greening, Steele Red, Turkey, Wealthy, Yellow Transparent and York Imperial.	
Almond	Peach twig borer San Jose Scale Fruit tree leafroller	4	28	Apply in "popcorn" or petal fall stages and again when the May brood of the peach twig borer begins to hatch or thereafter as needed.
	Navel orangeworm	4	28	Time early and mid season applications to correspond to moth flight peaks. Make a late season application at initiation of hull split or up to 10% hull split. Do not apply more than 3 fluid ounces of Cenol Liquid Carbaryl per 430 sq. ft. per application.

Apples Pears	Apple aphid, Apple rust mite, Apple sucker, Bagworms, California pearship (pear sawfly), Codling moth, Green fruitworm, Lecanium scales, Lesser appleworm, Lygus bugs, Orange tortrix, Oystershell scale, Pear leaf blister mite, Pear psylla, Pear rust mite, San Jose scale, Tenthredinid leafminers, Woolly apple aphid	3 to 4	1	WEST OF THE ROCKY MOUNTAINS To avoid undesired apple thinning, delay use until at least 30 days after full bloom. For psylla control apply when eggs hatch or young nymphs are present.
	Apple mealybug, Apple aphid, Codling moth, White apple leafhopper	2		EAST OF THE ROCKY MOUNTAINS To avoid undesired apple thinning, delay use until at least 30 days after full bloom.
	Apple maggot, Apple rust mite, Bagworms, Eastern tent caterpillar, European apple sawfly, Eyespotted bud moth, Forbes scale, Fruit tree leafroller, Green fruitworm, Japanese beetle, Lecanium scales, Lesser appleworm, Oystershell scale, Pear psylla, Pear leaf blister mite, Pear rust mite, Periodical cicada, Plum curculio, Red-banded leafroller, Rosy apple aphid, San Jose scale, Tarnished plant bug, Tenthredinid leafminers, Woolly apple aphid, Yellowheaded leucum	4	1	For optimum scale control apply when crawlers are present.
Citrus Fruits (Such as grapefruit, lemons, limes, oranges, tangerines, Citrus citron, kumquats and hybrids)	Avocado leafroller, California orangehog, Citrus cutworm, Citrus root weevil, Fruit tree leafroller, Orange tortrix, Western blackberry moth, West Indian sugarcane borer (adult)	4	5	Do not apply more than 12 fluid ounces of Cenol Liquid Carbaryl per 430 sq. ft. per application. Do not apply less than 10 gallons of dilute spray mixture per citrus tree. May be mixed with petroleum oil consistently used on citrus.
	Black scale, Brown soft scale, California red scale, Citrus scale, Citrus snow scale, Yellow scale			
Filbert	Filbert aphid, Filbert leafroller, Filbertworm	4	0	Apply when leafroller eggs are hatching. Repeat on first appearance of adult Filbert moths and again 3 to 4 weeks later.
Olive	Olive scale	3 to 4	0	For optimum scale control add 12 teaspoons of summer oil per gallon and apply mixture when crawlers are present. Do not exceed 2 applications per year. Do not apply more than 9.6 fluid ounces of Cenol Liquid Carbaryl per 430 sq. ft. per application.
Peaches Apricots Nectarines	Apple psyllids, Codling moth, Cucumber beetles, European sawfly, Fruit tree leafroller, Japanese beetle, June beetles, Lecanium scales, Lesser peachtree borer, Olive scale, Orange tortrix, Oriental fruit moth, Peach twig borer, Periodical cicada, Plum curculio, Red-banded leafroller, San Jose scale, Tarnished plant bug, Tussock moth, Variegated leafroller	4	1 (peaches) 3 (apricots & nectarines)	Do not apply more than 4 fluid ounces of Cenol Liquid Carbaryl per 430 sq. ft. per application to apricots. For optimum scale control apply when crawlers are present. Spray limbs and trunk thoroughly, weekly during moth flight.

(2)

Pecans	Black margined aphid, Fall webworm, Hickory shuckworm, Lesser webworm, Pecan leaf phylloxera, Pecan nut casebearer, Pecan scalebug, Pecan weevil, twig girdler, Walnut caterpillar	4 to 10	0	Do not apply more than 5 fluid ounces of Cenol Liquid Carbaryl per 430 sq. ft. per application
Plums Prunes Cherries	Black cherry aphid, Brown soft scale, Cherry fruitworm, Cherry maggot, European sawfly, Eyespot bud moth, Forbes scale, Fruit tree leafroller, Green fruitworm, Japanese beetle, Lecanium scales, Lesser peach tree borer, Massey plum aphid, Oyster shell scale, Peach twig borer, Plum curculio, Prune leafhopper, Redbanded leafroller, Rose chafar, San Jose scale, Variegated leafroller	4	1	Do not apply more than 4 fluid ounces of Cenol Liquid Carbaryl per 430 sq. ft. application. For optimum scale control apply when crawlers are present. For lesser peachtree borer control spray limbs and tree trunks thoroughly, weekly during moth flight.
	Codling moth, Eastern tent caterpillar, Orange tortrix, Tussock moth	3	1	See Above
Walnut	Celtis scale, European fruit lecanium, Fibbertworm, Fruit tree leafroller, Frosted scale	2		Apply 3 fluid ounces of Cenol Liquid Carbaryl spray per 430 sq. ft. for mature trees. For codling moth apply first spray when average cross sectional diameters of developing rings are 1/8 to 1/4 inch. Repeat during middle or late June as needed.
	Codling moth	2	0	
	European earwig	8	0	Spray tree trunks to point of run-off.

SMALL FRUIT CROPS

All dosages refer to teaspoonsful of Cenol Liquid Carbaryl per gallon of water. Use sufficient spray gallonage to obtain thorough coverage. Do not exceed maximum rate of Cenol Liquid Carbaryl per gallon of spray. (One teaspoonful equals 0.17 fluid ounces or 5 milliliters. Three teaspoonsful equal one tablespoonful).

CROPS	INSECT	TSPS OF Cenol Liquid Carbaryl Per GAL.	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
Blackberries Raspberries Dewberries (including boysen- berries and loganberries)	European raspberry aphid, Japanese beetle, Leafhoppers, Leafrollers, Rose chafar, Snowy tree cricket	4 to 8	7	
	Omnivorous leafroller, Raspberry sawfly	6	7	CALIFORNIA ONLY.
Blueberries	Blueberry maggot, Cherry fruitworm, Cran- berry fruitworm, European fruit lecanium, Japanese beetle	6	0	Apply 3 weeks before harvest and repeat as necessary.
Cranberries	Cutworms, Cranberry fire- worms, Cranberry fruit- worms, Japanese beetle, Leafhoppers, Rose chafar	6 to 12	1	CAUTION: May kill shrimp and crabs. Do not use in areas where there are important resources. Apply in late bloom and as needed at 7 to 10 day intervals.
Grapes	European fruit lecanium, Grape leafhopper, Grape leafhopper, Western grape- leaf skeletonizer, Western yellow-striped armyworm	4 to 8	0	Apply before first brood leafhopper larvae emerge from tulle.
	Cutworms, Eight-spotted forester, Grape berry moth, Japanese beetle, June beetles, Orange tortrix, Omnivorous leafroller, Redbanded leafroller, Saltmarsh caterpillar	8	0	
Strawberries	Flea beetles, Meadow spittlebug, Omnivorous leafroller (strawberry fruit- worm), Strawberry leaf- roller, Strawberry weevil	4 to 8	1	Cenol Liquid Carbaryl may injure Early Dawn and Sunrise varieties on the Oakmarva Panthula.

TREES AND ORNAMENTALS

For dilute spray applications to trees (including shade trees, shelter belts, plantations, parks and recreational areas), ornamentals, woody plants and shrubs, apply the specified dosage per gallon of water in sufficient spray volume to provide thorough coverage. (One teaspoonful equals 9.17 fluid ounces or 6 milliliters. Three teaspoonfuls equal one tablespoonful.)

CROPS	INSECT	TSPS OF Cenol Liquid Carbaryl Per GAL.	PRE- HARVEST INTERVAL (DAYS)	SPECIFIC DIRECTIONS
GROUND APPLICATION Trees (including shade trees, shelter belts, plantations, parks and recreational areas) Ornamentals (including roses, flowers and other herbaceous plants). Woody Plants and Shrubs	Ants, Apple aphid, Armyworm, Azalea leafminer, Bagworms, Bark beetle, Bark borer, Boxelder bug, Boxwood leafminer, Brownish weevil, Caterpillars, Chiggers, Cuckoo sparrow gill aphid, Cuckoo sparrow, Cypress tip moth, Douglas fir, tussock moth, Eastern spruce gill aphid, Elm leaf aphid, Elm leaf beetle, Elm spider, European spruce sawfly, European spruce sawfly, Fall armyworm, Flea beetles, Fuller rose beetle, Gall midges, Gall wasps, Green striped mapleworm, Grasshoppers, Gypsy moth, Hackberry nippligall maker, Holly bud moth, Holly leafminer, Japanese beetle, Jeffrey pine needleminer, June beetles, Lace bugs, Leafhoppers, Leafrollers, Locust borer, Maple leaf-cutter, Mealy bugs, Mimosa webworm, Nantucket pine tip moth, Oak leafminer, Oak leaf skeletonizer, Oak-worm complex, Oblique caterpillar, Olive ash borer, Orange striped oakworm, Orange tortle, Periodical cicada, Pine sawfly, Pine spittlebug, Pitch pine tip moth, Plant bugs, Poinsettia hornworm, Pyralids, Puss caterpillar, Red-tipped oakworm, Rose aphid, Rose chaffer, Rosebug, Saddled prominent, Sawflies (exposed), Scale insects, Sawbugs, Spiny elm caterpillar, Springtails, Spruce budworm, Spruce needleminer, Subtropical pine tip moth, Tent caterpillars, Thorn bug, Thrips (exposed), Ticks, Walnut caterpillar, Webworms, Western hemlock looper, Western spruce budworm, Willow leaf beetles, Yellow poplar weevil	4		Observe plant response precautions. Apply dilute sprays to obtain thorough coverage of upper and lower leaf surfaces. To control scale insects, treat trunks, stems and foliage in addition to plant foliage. For optimum worm control, treat when in early instars. Addition of a sticker may improve residual control.
	Ips engraver beetle, Mountain pine beetle, Roundheaded pine beetle, Western pine beetle	(13.3 ounces/gal.)		Effective as a preventive treatment only. Repeat annually as required to prevent beetle attacks. Apply 1 gallon of spray per 50 square feet of bark in late May to early July, or prior to beetle attack. Treat tree trunks from ground level up, until trunk diameter is less than 5 inches.

LAWNS AND RECREATIONAL AREAS

CROPS	INSECT	INSECT	SPECIFIC DIRECTIONS
Lawns and Recreational Areas	Ants Armyworm Bluegrass billbug Centipedes Chiggers Cutworms Earwigs Essex skipper European chaffer Fall armyworm Flary skipper Flea Grasshoppers	June beetles Leafhoppers Lucerne moth Millipedes Mosquitoes Sod webworm (lawn moths) Sowbugs Springtails Ticks Yellow-striped armyworm	Use 2 quarts of Cenol Liquid Carbaryl in 150 to 200 gallons of spray mixture per 5000 square feet of established lawn, recreational area, roadway or path border. For best results, mow lawn and apply after watering or rain. Insure good penetration of turf. Garden hose or pressure applicators may be used. Repeat 2 to 3 weeks later if necessary.
	Chinch bugs White grubs		Use 3 quarts of Cenol Liquid Carbaryl in 150 to 200 gallons of spray per 5000 square feet.

(1)

MOSQUITO CONTROL

For dilute-spray ground applications to trees (including shade trees, shelter belts, plantations, parks and recreational areas), ornamentals, woody plants and shrubs, apply the specified dosage per 1 gallon of water. Avoid direct application to lakes, streams and ponds.

CROP	AMOUNT OF Cenol Liquid Carbaryl Per GAL.	SPECIFIC DIRECTIONS
Yards and Recreational Areas	1 to 2 tablespoons/ gal. 16 oz./gal.	ADULT MOSQUITOES CAUTION: May kill shrimp and crabs. Do not use in areas where these are important resources. Treat shrubbery and areas where adult mosquitoes congregate. Treat when adult mosquitoes are active in early morning or late evening. Repeat at 7 to 10 day intervals. For residual control in subtropical regions apply 4 gallons of prepared spray per 2000 sq. ft. of surface area. Repeat in 3 to 6 months or when necessary.

PEST CONTROL IN AND AROUND BUILDINGS LIMITED TO PEST CONTROL OPERATORS ONLY

INSECT	AMOUNT OF Cenol Liquid Carbaryl Per GAL.	SPECIFIC DIRECTIONS
Ants Cockroaches	17 ounces/gal.	For use in and around buildings such as homes, apartments, warehouses, barns, and municipal and recreational areas.
Brown dog tick Earwigs Flies Millipedes Silverfish	7 ounces/gal.	Apply as a coarse wet spray or with a paint brush to outdoor sleeping quarters of pets, outside perimeter of dwellings and other areas where insects tend to congregate. Do not use in food areas or food handling establishments, restaurants or other areas where food is commercially prepared or processed. Do not use in serving areas while food is exposed.

POULTRY INSECT CONTROL

POULTRY	INSECT	SPECIFIC DIRECTIONS
Chickens Ducks Geese Gamebirds Pigeons Turkeys	Chicken mite Flies Lice Northern fowl mite	FOR USE AS A DIRECT MIST SPRAY ON BIRDS BY: 1. Mixing with Electric Fog Machine: Mix 20 ounces of Cenol Liquid Carbaryl in 1 gallon of spray. Use 1 1/2 gallons per 1000 hens in cages, on litter or on slatted floor. Repeat in 4 weeks if necessary, or 2. Spraying with knapsack or cylinder type compressed air sprayers. Mix 12 ounces of Cenol Liquid Carbaryl in 5 gallons of spray. Use 1 gallon per 100 hens in cages, on litter or on slatted floor. Repeat in 4 weeks if necessary. Direct mist spraying for chicken mite and flies is a supplement to spraying roosts and buildings for control of these pests. Do not apply to poultry and game birds within 7 days of slaughter.

POULTRY ROOSTS AND BUILDINGS ONLY

POULTRY QUARTERS	AMOUNT OF Cenol Liquid Carbaryl Per GAL.	SPECIFIC DIRECTIONS
Bed Bugs Chicken mite Flies Lice Northern fowl mite	5 tablespoon/gal.	Apply 12 to 25 ounces of spray mixture per 100 square feet of wall, floor or roost surface. Force spray into cracks. Repeat as needed. Avoid contamination of nests, eggs and feeding and watering troughs.
Fowl tick	10 ounces/gal.	Ventilate while spraying. Do not treat premises within 7 days of slaughter.
Less mealworms	33 ounces/gal.	Apply 25 ounces of spray mixture per 100 square feet of floor space or litter surface. Repeat as needed. Ventilate while spraying. Do not treat premises within 7 days of slaughter.